

1. Claims 1, 4, 6-10 and 16 were rejected under §103(a) over Hamada. This rejection is respectfully traversed.

Independent claim 1 recites at least in part that each of the cell passages has an adjacent pair of undulating wall face portions that include recessions and protrusions, and that, for each cell passage, the undulating wall face portions of the adjacent pair are positioned such that (i) corresponding protrusions of each of the adjacent undulating wall face portions face one another and corresponding recessions of each of the adjacent undulating wall face portions face one another, or (ii) corresponding protrusions of one of the adjacent undulating wall face portions face recessions of the other. Claim 1 also recites that, for each cell passage, an adjacent pair of flat wall face portions is located opposite the adjacent pair of undulating wall face portions, and the undulated-wall honeycomb structure comprises at least 56 of the specifically shaped cell passages.

Claim 1 is structurally distinguishable from Hamada because the cells within the structure of Hamada that are coincidentally similar to the claimed cell passage structure are limited to the four cells in the center of the honeycomb structure in Figure 2B, as discussed in the Amendment filed January 23, 2009, the entirety of which is incorporated by reference. While Hamada suggests that an increase in the above flat wall faced portions increase the external pressure reinforcement of the honeycomb structure (Office Action at page 7), the addition of straight walls in the center section of Figure 2 of Hamada would result in square shape cells in the center section of Hamada because the straight walls would replace the undulated-walls shown in Figure 2. As such, a modification along this line would not result in the cell passages specifically recited in the pending claims.

Further, there is no support in the disclosure of Hamada for inserting straight walls between the undulated-walls shown in Figure 2 of Hamada, other than a hindsight reconstruction using the present invention as a road map, which is impermissible under U.S. Patent law.

Further, Applicants respectfully disagree with the PTO's assertion that the "at least 56 of cell passages" does not confer patentability to the claim, because this is a structural limitation that is not present in the cited reference. Thus, the cell structure of claim 1 is distinct from the PTO's asserted structure based on the disclosure of Hamada.

Additionally, the disclosed method for forming the honeycomb structure disclosed by Hamada adjusts the inner diameter of the supply holes in either of the x-axis or y-axis direction utilizing the adjusting rings of the inner diameter to form the honeycomb wall structure. Adjusting the rings to form straight walls in the center section of Figure 2 of Hamada would result in square shaped cells in the center of the honeycomb structure. Therefore, the method disclosed by Hamada would not form a cell structure as asserted by the PTO. In contrast, independent claim 1 clearly recites that each of the cell passages has an adjacent pair of undulating wall face portions that include recessions and protrusions and that for each cell passage, the undulating wall face portions of the adjacent pair are positioned such that (i) corresponding protrusions of each of the adjacent undulating wall face portions face one another and corresponding recessions of each of the adjacent undulating wall face portions face one another, or (ii) corresponding protrusions of one of the adjacent undulating wall face portions face recessions of the other.

The claimed cell structure of claim 1 is advantageous because the cross sectional area of each of the cell passages continuously changes in the passage direction, thereby causing the flow of gas through the passage to become non-stationary, which further increases the affects

of the interaction between the gas and the walls of the honeycomb and improves the purification properties of the honeycomb structure (specification page 28).

Based on the above, Hamada fails to teach or suggest each and every element of independent claim 1. Accordingly, Applicants respectfully request that Examiner Leung reconsider and withdraw this rejection.

2. Claim 5 was rejected under §103(a) over Hamada in view of Yutake and Maus; claims 11 and 17 were rejected under §103(a) over Hamada in view of Abe; and claim 18 was rejected under §103(a) over Hamada in view of Sugita. These rejections are respectfully traversed, because all of these claims ultimately depend from claim 1, and claim 1 is patentable for the reasons explained above.

For at least the foregoing reasons, Applicants respectfully submit that all pending claims herein are in condition for allowance. Accordingly, Examiner Leung is requested to issue a Notice of Allowance for this application in due course.

If the Examiner believes that contact with Applicants' attorney would be advantageous toward the disposition of this case, the Examiner is herein requested to call Applicants' attorney at the phone number noted below.

The Commissioner is hereby authorized to charge any additional fees associated with this communication or credit any overpayment to Deposit Account No. 50-1446.

Respectfully submitted,

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